



MORTON LEIFER PE.
ELECTRONIC COMMUNICATIONS SPECIALIST
TOWN OF CLARKSTOWN



December 7, 2015
Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
Re: WT Docket No. 12-40
Dear Ms. Dortch,

As a member of the Antenna Advisory Board (AAB) of the Town of Clarkstown, located in Rockland County New York, I have been reviewing a spate of new applications from each of the Cellular Carriers operating within the Town, requesting special permits to build out their existing sites and construct additional sites with LTE technology. The AAB application process, in addition to evaluating zoning and structural issues, require submission of RF coverage maps, frequencies and ERP power levels of the proposed expansion.

My interest was piqued by the very high ERP values of nearly 2000 Watts per Sector per Site proposed on the 800 MHz portion of the ESMR Band for their LTE expansions. I was also concerned that the outer value of their in-building coverage contours were measured in Reference Signal Received Power (RSRP) dBm rather than the RSSI dBm commonly used in LMR applications. By converting the RSRP values to RSSI, I determined that the outer value of the stated Cellular in-building coverage contour at one of the proposed sites would be more than 50 dB greater than the measured signal level from our Town's single site 150 Watt ERP Police Dispatch repeater on 858.7125 MHz located three miles distant.

Of further concern, One Hundred Percent (100 %) of the installed base of our Town and County 700/800 LMR subscribers have an advertised frequency range in the 800 MHz band of 851-870 MHz.

A simple bench test, generating a narrow band analog -30 dBm LTE frequency to the antenna input of a Town Police radio, produced a measured and repeatable 10 dB desense on the Town's Police Dispatch frequency of 858.7125MHz. The desense experienced by our Patrol units should they closely approach an LTE site, with a much stronger Broadband signal, would likely mask our more distant single site 858.7125 MHz signal completely.

Citing this potential interference issue to the Cellular applicants at our AAB meeting, we requested that On-Off tests be performed to ensure that Public Safety reception was possible at the proposed LTE site location before a Certificate of Occupancy (CO) would be issued.

One Cellular applicant responded with a written statement indicating;

We would be professionally remiss in omitting a reference to a July 2003 FCC decision- a "Memorandum Opinion and Order" in "WT Docket No. 02-100" that related to interference. That FCC Order concluded that any local ordinance requiring a certification of non-interference



related to a wireless antenna siting application represents "impermissible regulation" of RF interference, an area under exclusive FCC jurisdiction and federally-preempted local regulation".

While I am aware that there is a process in place to report 800 MHz interference when it does occur, any single incident of interference where a First Responder cannot hear his/her Dispatcher represents a serious Officer/Public Safety issue that should not be allowed to occur.

Our Town's AAB is being forced into a position where we have to grant a permit for an LTE site with the knowledge that our action could likely put our First Responders in jeopardy.

There are more than thirty (30) separate cellular site locations within the Town of Clarkstown, many located near large Facilities of Public Accommodation. Each LTE permit issued by the Town of Clarkstown is likely to produce an additional dead spot where our First Responders will be unable to communicate with their Dispatchers.

As Acting Chair of the FCC's Regional Planning Committee (RPC-8), I have received well documented reports of LTE interference from several jurisdictions within my Region, detailing totally disrupted Public Safety communications in locations proximate to LTE sites. I am in possession of many detailed reports that show extremely high LTE signal levels with concomitant elevated noise floor values as high as -85 dBm close to the LTE site being the source of the interference. (Please see exhibits)

I am aware of the ongoing effort to specify an appropriate Power Flux Density (PFD) limit that would protect the current generation of Public Safety receivers from harmful LTE interference in the 800 MHz band. I would like to suggest, what I believe to be, a more effective remedy for eliminating the interference we are now experiencing while avoiding the increased incidence of interference as LTE sites continue to build out.

An 800 MHz Public Safety radio system's ERP is limited and determined by its interference contours relative to the service contours of nearby incumbent co-channel and adjacent channel service contours. Therefore, the on-channel signal level of an LMR at an LTE site might likely be anywhere from -70 dBm to -100 dBm. The weaker the signal received, the more susceptible an LMR will be to the desense caused by the nearby strong LTE signal. By measuring the RSSI of the LMR, which may be displayed on its screen or available at its accessory plug, and performing an OFF-ON test on the LTE sector, the sector parameters can be adjusted until it is determined that the LMR can reliably receive its Dispatcher at that LTE site.

The test is accomplished in the field with a minimum of test-equipment and time required. It would allow the LTE system to operate at the maximum power consistent with proper operation of the subscriber LMR.

The test could be requested by any Public Service agency experiencing interference, or any municipality prior to issuing a CO for an LTE expansion. The test could be accomplished by a local radio shop and perhaps be done under the auspices of the Technical committee of the area's RPC.

While *WT Docket No. 02-100* prohibits requiring the test, the Cellular community would be better served allowing the test than to have an arbitrary PFD level imposed.

Respectfully Submitted,

Morton Leifer PE



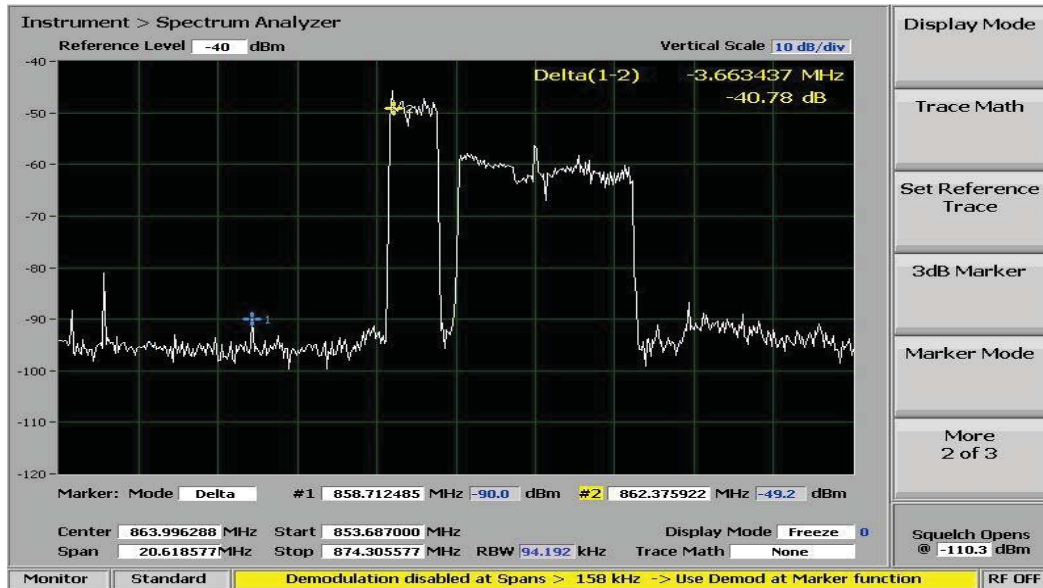
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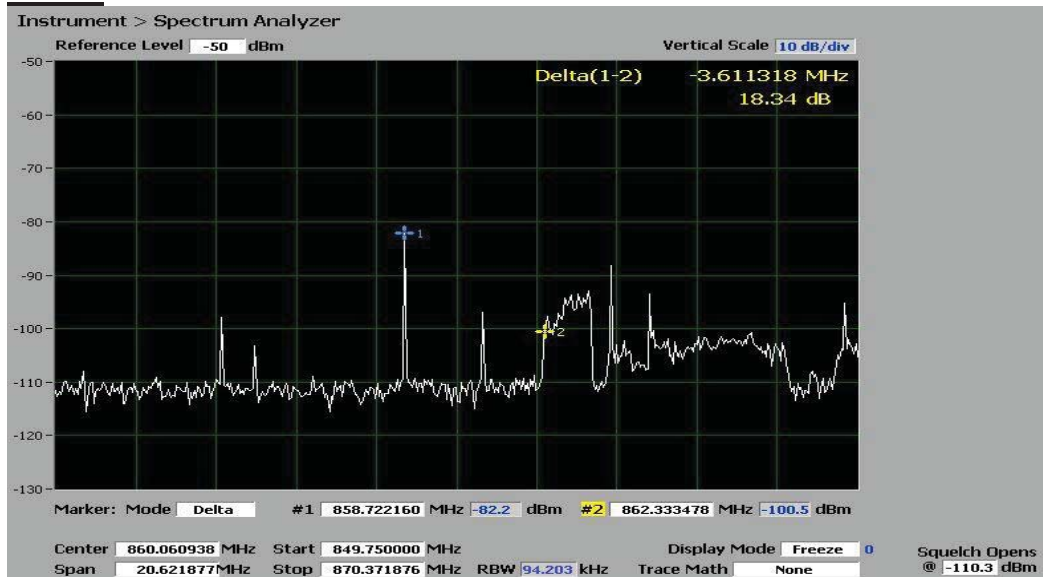


Exhibits



Town of Clarkstown Dispatch frequency is Marker (1) @ 858.7125 MHz
Cellular is Marker (2) @ 862.38 + MHz. Delta (f) = 3.7 MHz. 41 dB signal difference.

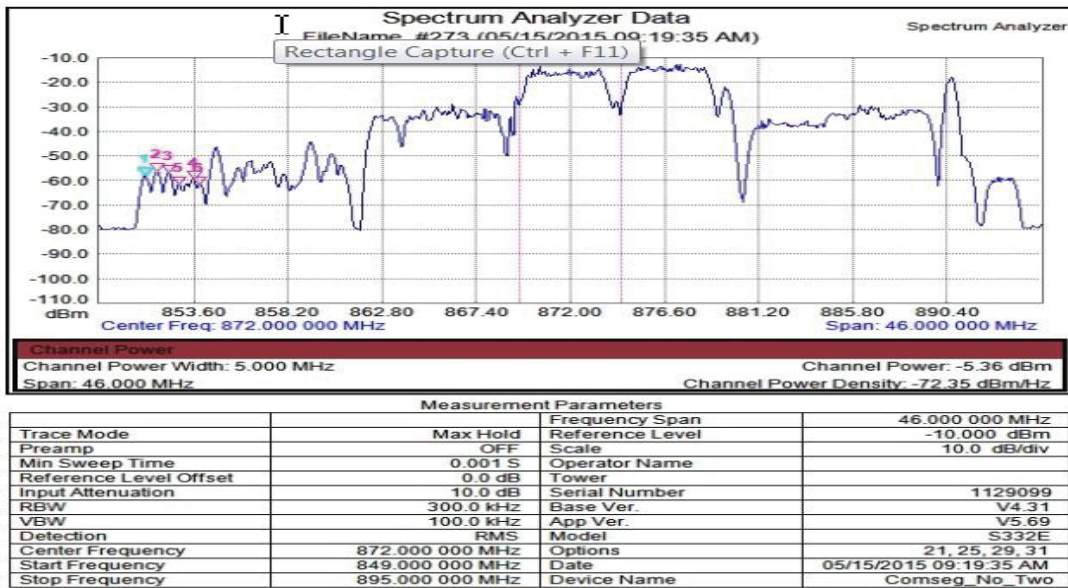
Close to cellular site Note elevated noise level



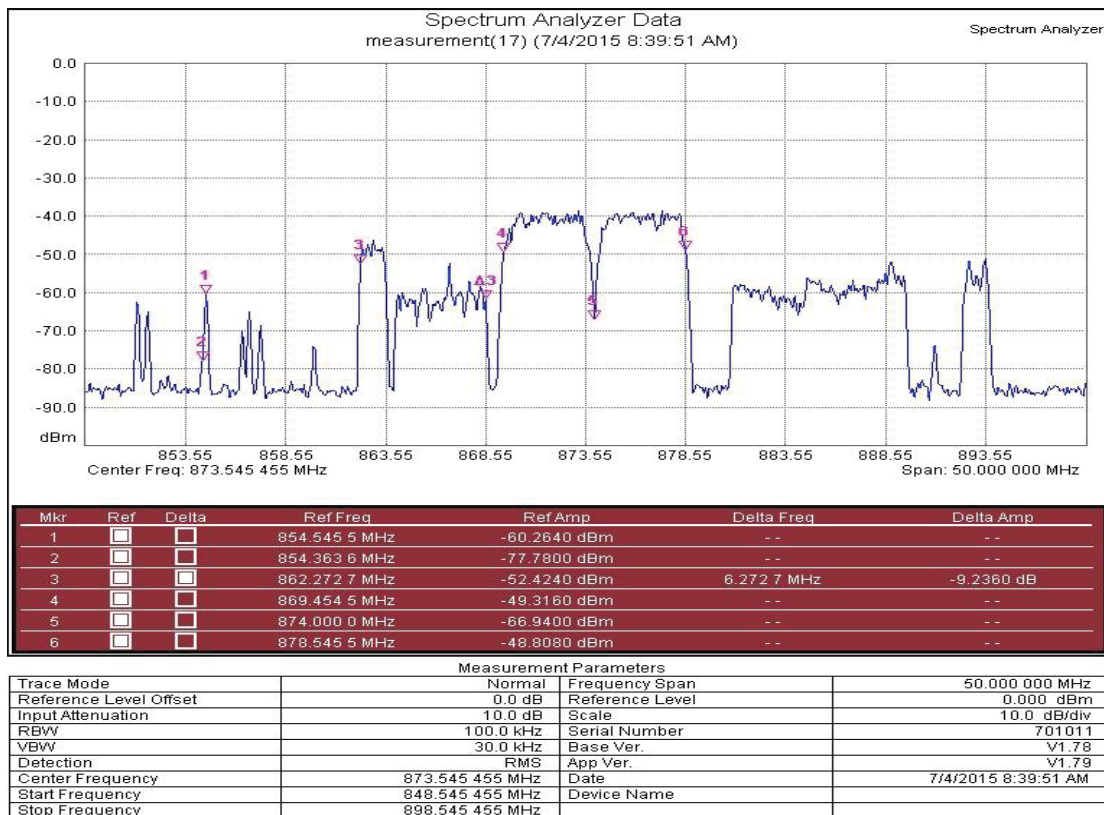
Town of Clarkstown Dispatch frequency is Marker (1) @ 858.7125 MHz
Cellular is Marker (2) @ 862.33 + MHz. Delta (f) = 3.6 MHz. 18.3 dB signal difference.

Distant to cellular site Note very low noise level.





Port Authority of NY and NJ shows LTE street level of -15 dBm.
 Note high noise level.



Massachusetts State Police Note elevated noise level.

Additional exhibits available on request. ML